



MIDWEST WIRELINE

**DUAL COMPENSATED  
POROSITY**

Company Satchell Creek Petroleum LLC  
 Well Worcester A #11-21  
 Field Alda South  
 County Graham  
 State Kansas

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 Well Worcester A #11-21  
 Field Alda South  
 County Graham State Kansas

Location: API #: 15-065-24267-00-00  
 SW NW SE SE  
 667 FSL & 1310 FEL  
 SEC 21 TWP 7S RGE 22W  
 Permanent Datum Ground Level Elevation 2268  
 Log Measured From Kelly Bushing  
 Drilling Measured From Kelly Bushing  
 Other Services  
 DIL  
 MEL/BHCS  
 K.B. 2275  
 D.F.  
 G.L. 2268

Date	7/14/2023						
Run Number	One						
Type Log	CNL/CDL						
Depth Driller	3849						
Depth Logger	3850						
Bottom Logged Interval	3829						
Top Logged Interval	3100						
Type Fluid In Hole	Chemical						
Salinity, PPM CL	1500						
Density	9.5						
Level	Full						
Max. Rec. Temp. F	114						
Operating Rig Time	4 Hours						
Equipment -- Location	P-24 Hays						
Recorded By	T. Martin						
Witnessed By	Sean Deenihan						
Borehole Record							
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	222	8.625	23	00	222
Two	7.875	222	TD				
Casing Record							

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All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

**Comments**

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

Hill City, KS, E to 310 Rd, 2.5 N, W into @ TB

Log Measured From: Kelly Bushing 7 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC  
 785-625-3858

**Your Midwest Wireline Crew**

Engineer: T. Martin  
 Operator:  
 Operator:  
 Operator:

**This Log Record Was Witnessed By**

Primary Witness: Sean Deenihan  
 Secondary Witness:  
 Secondary Witness:  
 Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	32.75		GR-M&W (105)	3.00	3.50	50.00
CNLSC CNSSC	29.65 28.90		CNT-M&W (201-M&W)	5.00	3.50	100.00
LSD DCAL SSD	20.60 20.58 20.10		CDL-M&W (307-11)	8.50	4.00	250.00
RLL3F RLL3	15.50 15.50		DIL-M&W (507)	18.25	3.50	220.00
CILD	8.33					
CILM	4.50					
SP	0.20					

Dataset: satchell\_worcester a #11-21.db: field/well/Stack/pass3.1  
 Total length: 34.75 ft  
 Total weight: 620.00 lb  
 O.D.: 4.00 in

# Log Variables

DatabaseC:\ProgramData\Warrion\Data\satchell\_worcester a #11-21.db  
 Dataset field/well/Stack/pass3.1/\_vars\_

## Top - Bottom

BOREID in 7.875	BOTTEMP degF 114	CASEOD in 5.5	CASETHCK in 0	FLUIDDEN g/cc 1	MATRXDEN g/cc 2.71	NPORSEL Limestone	PERFS No
SNDERR mmho/m 0	SNDERRM mmho/m 0	SPSHIFT mV 120	SRFTEMP degF 80	SZCOR Off	TDEPTH ft 3850		

## Variable Description

BOREID : Borehole I.D.  
 BOTTEMP : Bottom Hole Temperature  
 CASEOD : Casing O.D.  
 CASETHCK : Casing Thickness  
 FLUIDDEN : Fluid Density  
 MATRXDEN : Matrix Density  
 NPORSEL : Neutron Porosity Curve Select

PERFS : Perforation Flag  
 SNDERR : Deep Sonde Error Correction  
 SNDERRM : Medium Sonde Error Correction  
 SPSHIFT : S.P. Baseline Offset  
 SRFTEMP : Surface Temperature  
 SZCOR : CN Size Cor. ?  
 TDEPTH : Total Depth

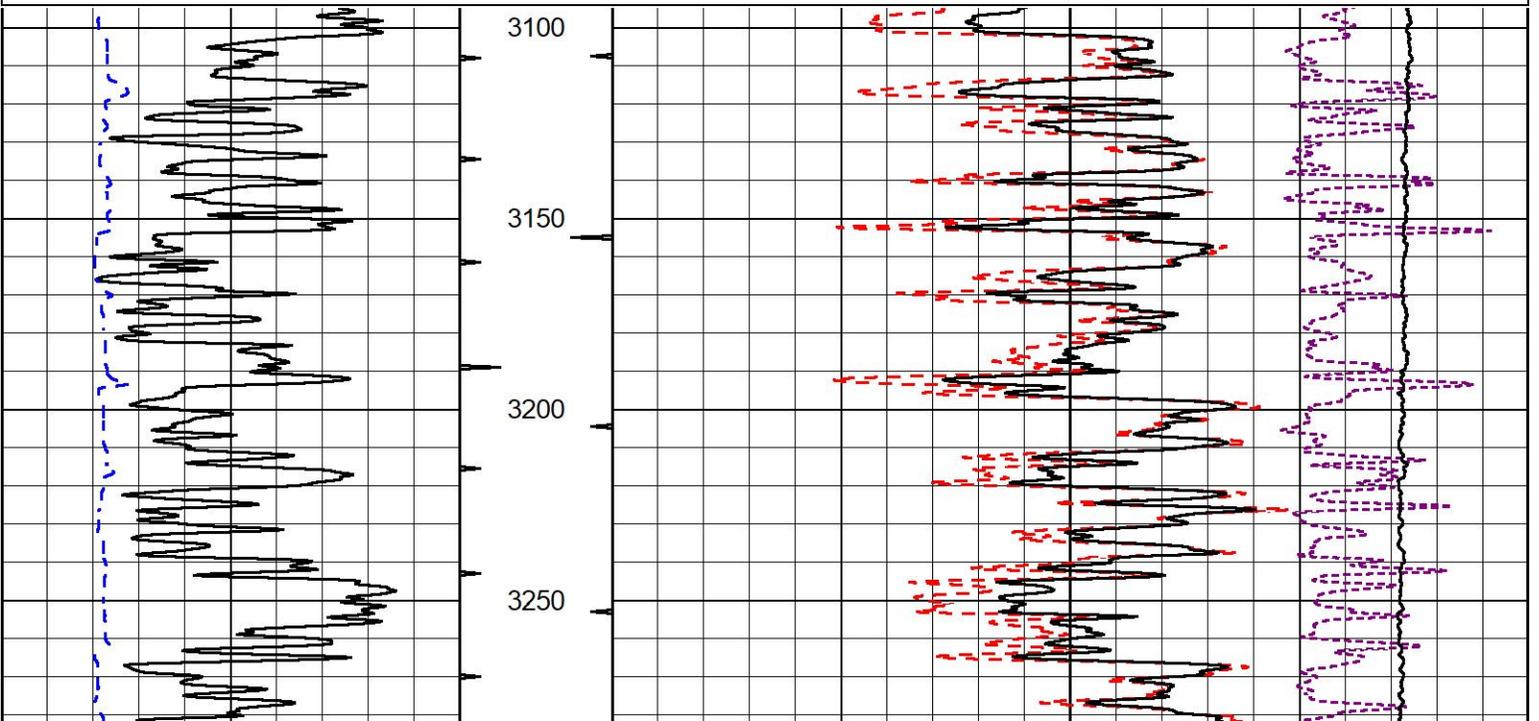


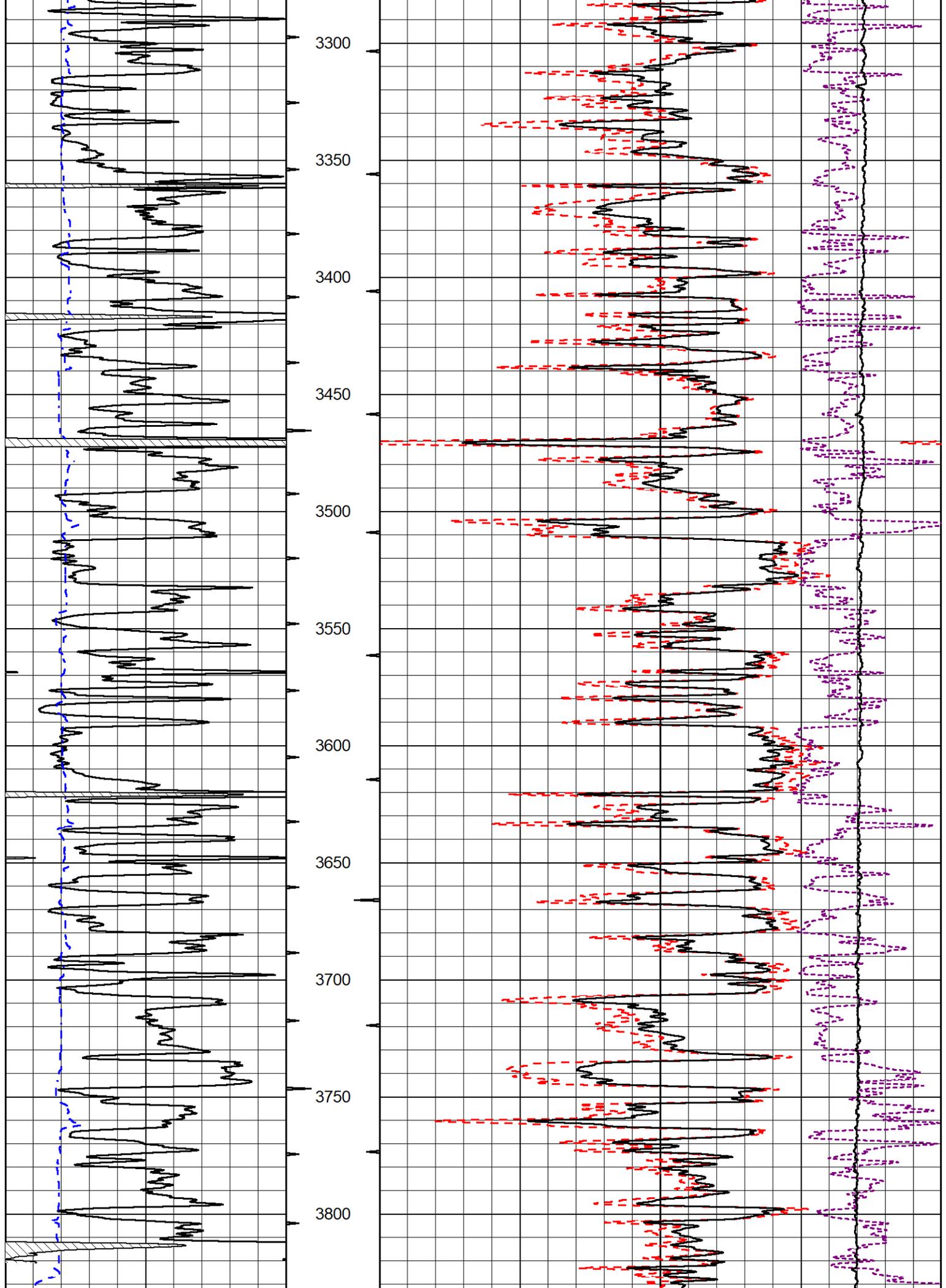
## 2" SCALE BULK DENSITY

### MAIN PASS

Database File satchell\_worcester a #11-21.db  
 Dataset Pathname Stack/pass3.3  
 Presentation Format \_cdl  
 Dataset Creation Fri Jul 14 13:26:32 2023  
 Charted by Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150	30	Compensated Density (pu)	-10	
6	Caliper (in)	16	2	Bulk Density (g/cc)	3	
			10000	Line Tension (lb)	0	
				-0.25	Correction (g/cc)	0.25





3850					
0	Gamma Ray (GAPI)	150	30	Compensated Density (pu)	-10
6	Caliper (in)	16	2	Bulk Density (g/cc)	3
			10000	Line Tension (lb)	0
				-0.25 Correction (g/cc)	0.25



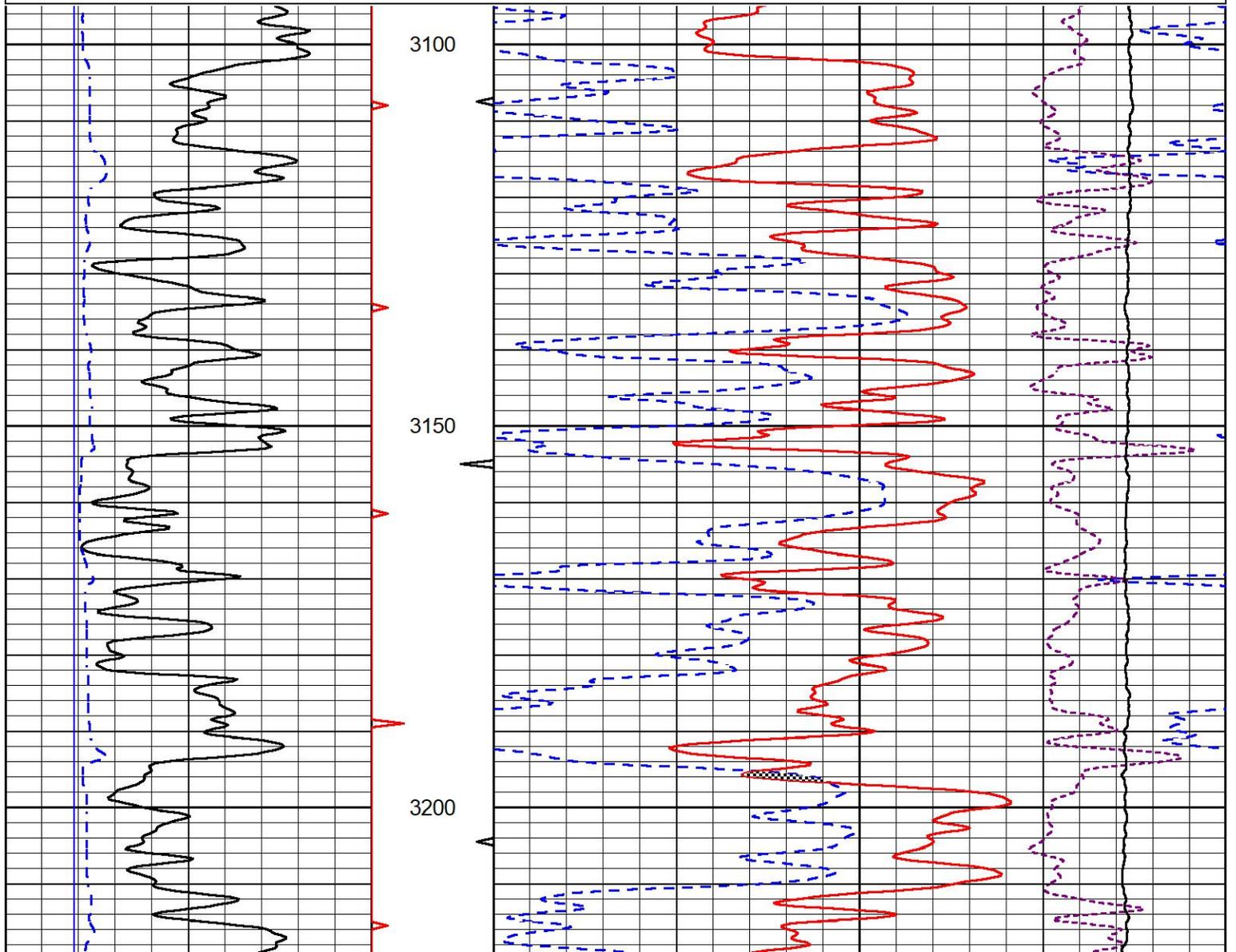
MIDWEST WIRELINE

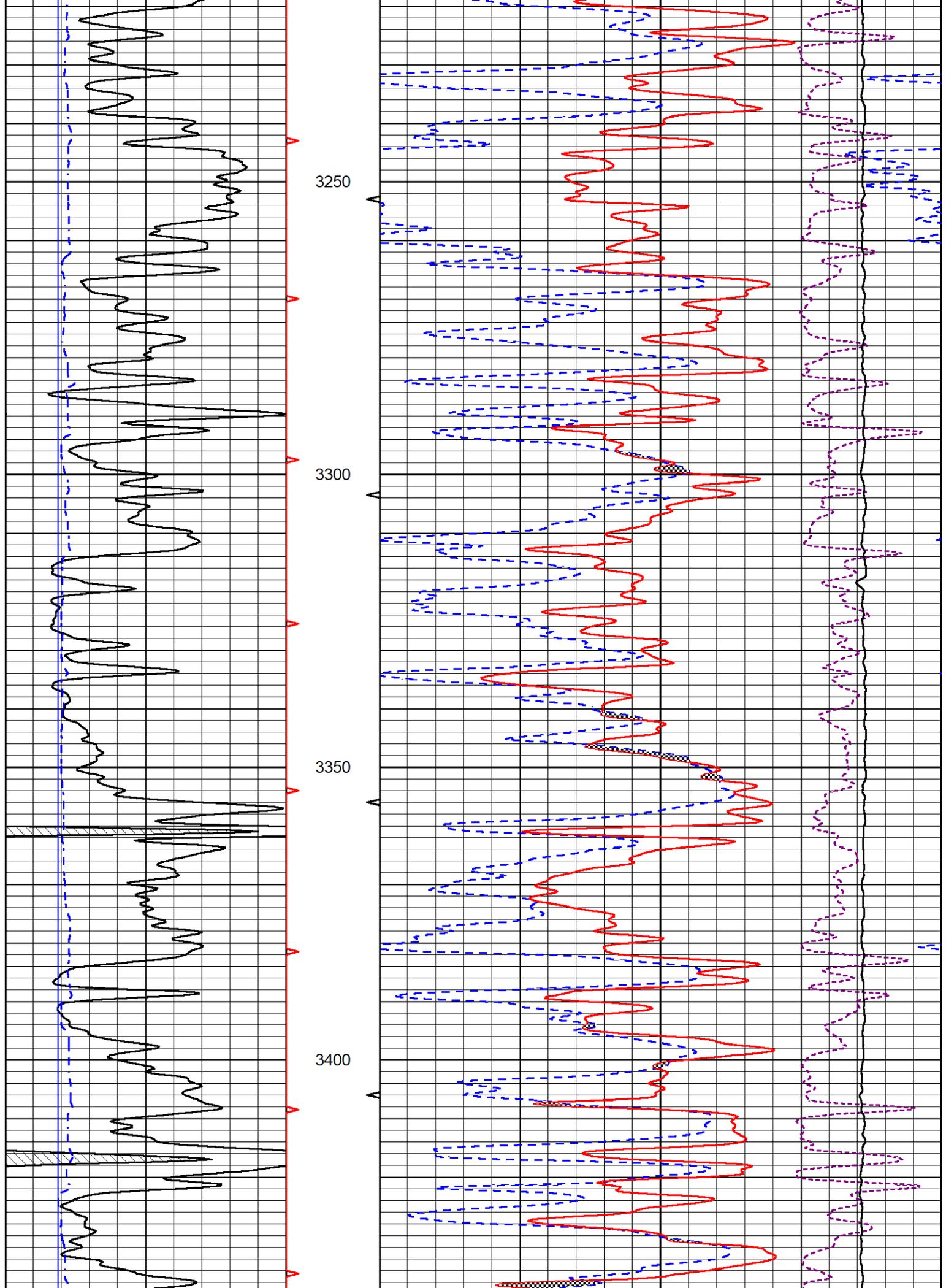
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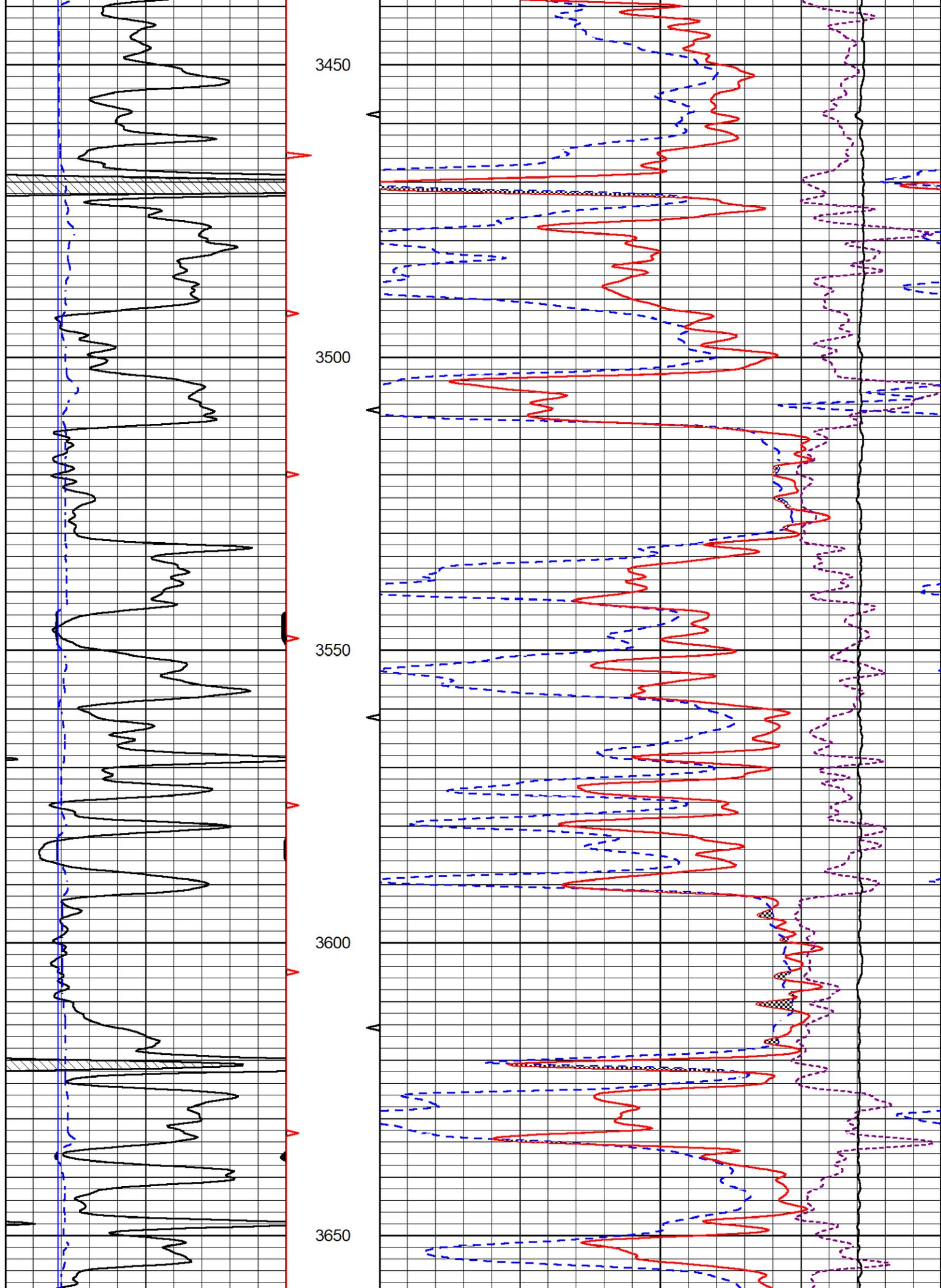
## MAIN PASS

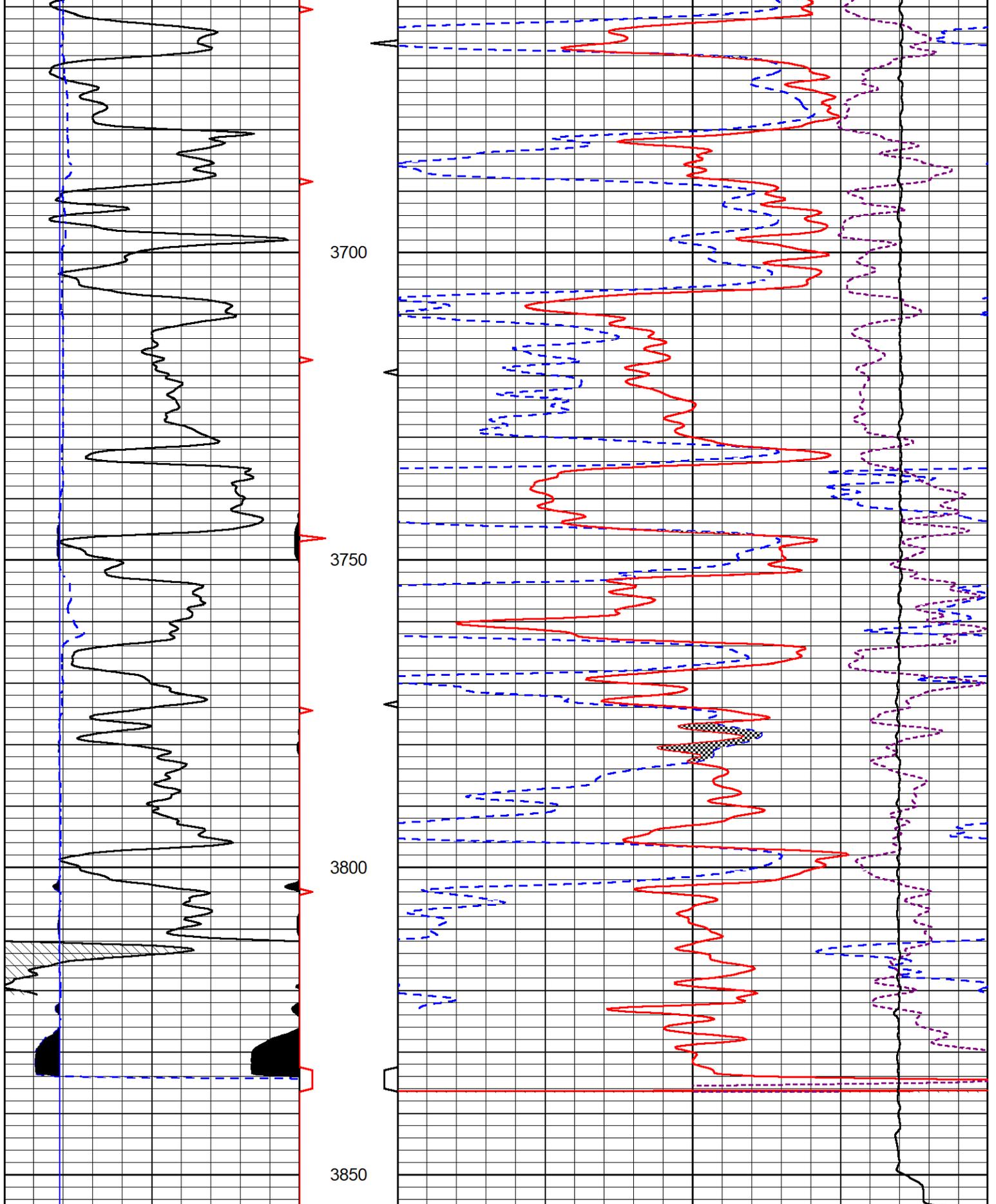
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 Dataset Pathname    Stack/pass3.1  
 Presentation Format    \_CNDLS~1  
 Dataset Creation      Fri Jul 14 14:02:44 2023  
 Charted by            Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	30	Compensated Neutron (pu)	-10
6	Caliper (in)	16	30	Compensated Density (pu)	-10
2.875	DCAL (in)	7.875	10000	Line Tension (lb)	0
				-0.25 Correction (g/cc)	0.25









0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
2.875	DCAL (in)	7.875

30	Compensated Neutron (pu)	-10
30	Compensated Density (pu)	-10
10000	Line Tension (lb)	0

-0.25	Correction (g/cc)	0.25
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MIDWEST WIRELINE

# REPEAT SECTION

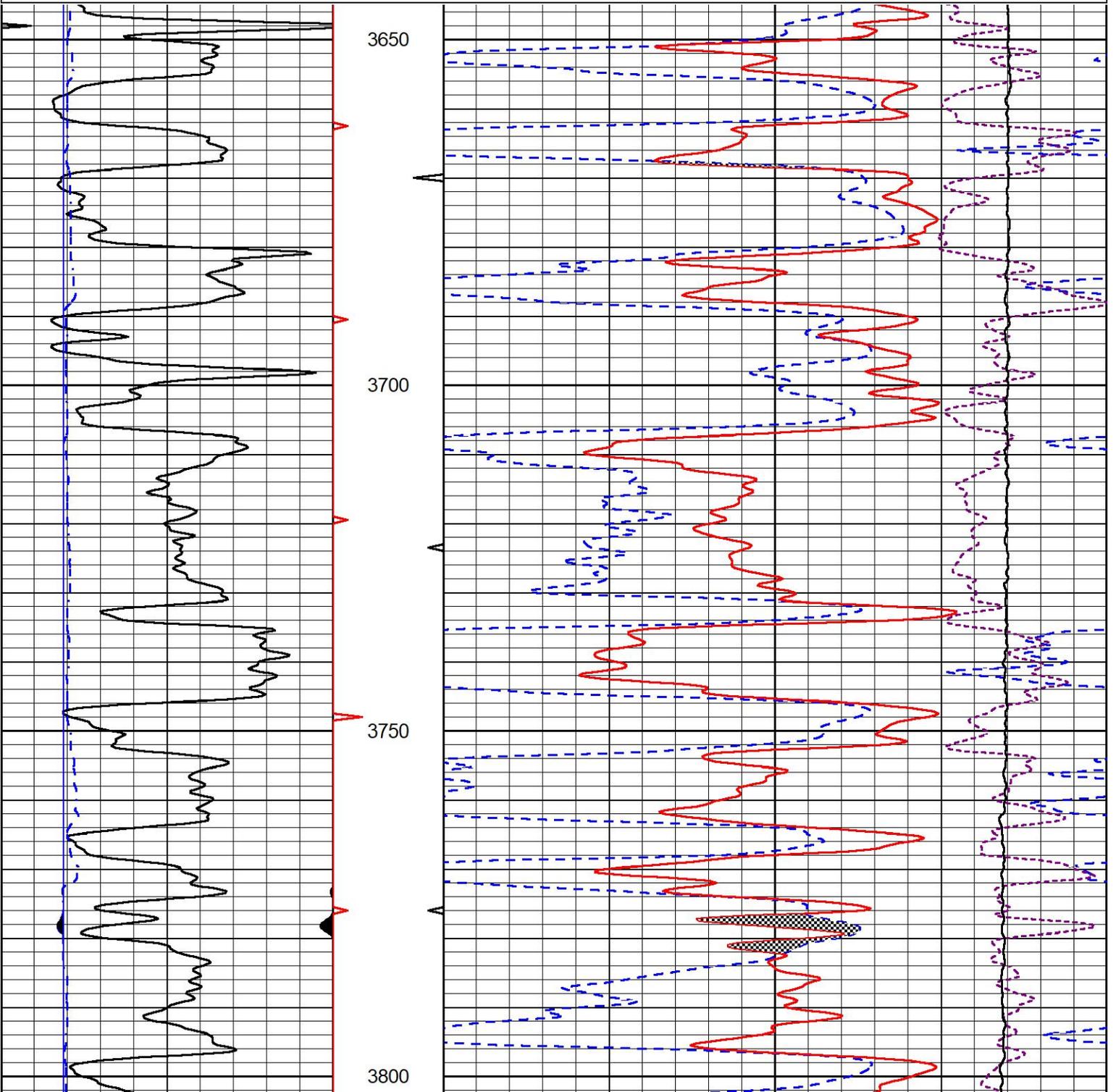
## REPEAT PASS

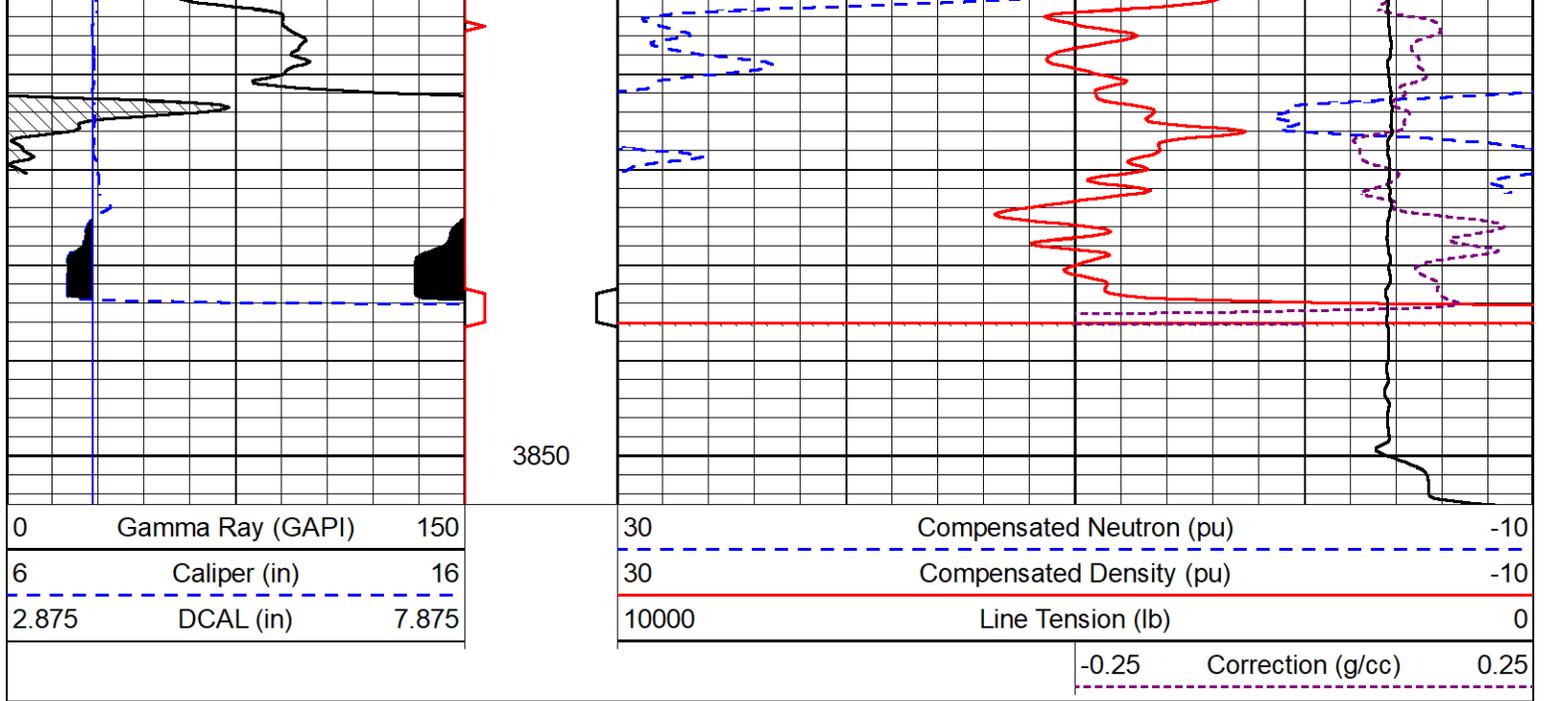
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 Dataset Pathname    Stack/pass2.1  
 Presentation Format    \_CNDLS~1  
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 Charted by            Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
2.875	DCAL (in)	7.875

30	Compensated Neutron (pu)	-10
30	Compensated Density (pu)	-10
10000	Line Tension (lb)	0

-0.25      Correction (g/cc)      0.25





### Calibration Report

Database File satchell\_worcester a #11-21.db  
 Dataset Pathname Stack/pass3.1  
 Dataset Creation Fri Jul 14 14:02:44 2023

### Dual Induction Calibration Report

Serial-Model: 507-M&W  
 Surface Cal Performed:

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	68.570	638.100	0.000	255.800	mmho/m	0.500	-37.000
Medium	184.288	716.191	0.000	255.800	mmho/m	0.470	-84.000

### Compensated Density Calibration Report

Serial-Model: 307-11-M&W  
 Source / Verifier: 20762B / 2ci  
 Master Calibration Performed: Tue Jun 6 21:48:20 2023  
 Before Survey Verification Performed:  
 After Survey Verification Performed:

### Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	3689.70	4749.82	cps
Aluminum	2.590	g/cc	822.19	3221.38	cps
Spine Angle = 75.50			Density/Spine Ratio = 0.538		
	Size		Reading		
Small Ring	6.00	in	1.16		
Large Ring	18.00	in	1.01		

### Compensated Neutron Calibration Report

Serial Number: 201-M&W  
Tool Model: M&W

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	6240.00 cps	1000.00 cps	1.6025
Long Space	460.00 cps	1000.00 cps	1.9500

Gamma Ray Calibration Report

Serial Number: 105  
Tool Model: M&W  
Performed: Fri Dec 3 15:10:46 2021

Calibrator Value: 500.0 GAPI

Background Reading: 24.0 cps  
Calibrator Reading: 637.0 cps

Sensitivity: 0.6000 GAPI/cps



MIDWEST WIRELINE

Company Satchell Creek Petroleum LLC  
Well Worcester A #11-21  
Field Alda South  
County Graham  
State Kansas